1. Assign the value 7 to the variable guess\_me. Then, write the conditional tests (if, else, and elif) to print the string 'too low' if guess\_me is less than 7, 'too high' if greater than 7, and 'just right' if equal to 7.

ANSWER.

guess\_me = 7

if guess\_me < 7:

print('too low')

elif guess\_me > 7:

print('too high')

else:

print('just right')

2. Assign the value 7 to the variable guess\_me and the value 1 to the variable start. Write a while loop that compares start with guess\_me. Print too low if start is less than guess me. If start equals guess\_me, print 'found it!' and exit the loop. If start is greater than guess\_me, print 'oops' and exit the loop. Increment start at the end of the loop.

ANSWER.

guess\_me = 7

start = 1

while True:

if start < guess\_me:

print('too low')

elif start == guess\_me:

print('found it!')

break

else:

print('oops')

break

start += 1

3. Print the following values of the list [3, 2, 1, 0] using a for loop.

ANSWER.

my\_list = [3, 2, 1, 0]

for item in my\_list:

print(item)

4. Use a list comprehension to make a list of the even numbers in range(10)

ANSWER.

even\_numbers = [num for num in range(10) if num % 2 == 0]

print(even\_numbers)

5. Use a dictionary comprehension to create the dictionary squares. Use range(10) to return the keys, and use the square of each key as its value.

ANSWER.

squares = {num: num \*\* 2 for num in range(10)}

print(squares)

6. Construct the set odd from the odd numbers in the range using a set comprehension (10).

ANSWER.

odd = {num for num in range(10) if num % 2 != 0}

print(odd)

7. Use a generator comprehension to return the string 'Got ' and a number for the numbers in range(10). Iterate through this by using a for loop.

ANSWER.

generator = ('Got ' + str(num) for num in range(10))

for item in generator:

print(item)

8. Define a function called good that returns the list ['Harry', 'Ron', 'Hermione'].

ANSWER.

def good():

return ['Harry', 'Ron', 'Hermione']

print(good())

9. Define a generator function called get\_odds that returns the odd numbers from range(10). Use a for loop to find and print the third value returned.

ANSWER.

def get\_odds():

for num in range(1, 10, 2): # Start from 1 and step by 2 to get odd numbers

yield num

count = 0

for odd\_number in get\_odds():

count += 1

if count == 3:

print("The third odd number is:", odd\_number)

break

10. Define an exception called OopsException. Raise this exception to see what happens. Then write the code to catch this exception and print 'Caught an oops'.

ANSWER.

class OopsException(Exception):

pass

try:

raise OopsException("An oops occurred!")

except OopsException as e:

print("Caught an oops:", e)

11. Use zip() to make a dictionary called movies that pairs these lists: titles = ['Creature of Habit', 'Crewel Fate'] and plots = ['A nun turns into a monster', 'A haunted yarn shop'].

ANSWER.

titles = ['Creature of Habit', 'Crewel Fate']

plots = ['A nun turns into a monster', 'A haunted yarn shop']

movies = dict(zip(titles, plots))

print(movies)